## **Exhibit 300: Capital Asset Summary**

## Part I: Summary Information And Justification (All Capital Assets)

#### Section A: Overview & Summary Information

Date Investment First Submitted: 2010-08-06
Date of Last Change to Activities: 2012-07-24
Investment Auto Submission Date: 2012-02-28
Date of Last Investment Detail Update: 2012-06-22
Date of Last Exhibit 300A Update: 2012-08-16

Date of Last Revision: 2012-08-16

**Agency:** 010 - Department of the Interior **Bureau:** 12 - United States Geological Survey

**Investment Part Code: 01** 

Investment Category: 00 - Agency Investments

1. Name of this Investment: USGS - CLU - Land Satellites Data System (LSDS)

2. Unique Investment Identifier (UII): 010-000001047

Section B: Investment Detail

1. Provide a brief summary of the investment, including a brief description of the related benefit to the mission delivery and management support areas, and the primary beneficiary(ies) of the investment. Include an explanation of any dependencies between this investment and other investments.

DOI/USGS serves as the steward of the national archive for Landsat data. LSDS ensures that timely, consistently calibrated imagery of the Earth's land surface will be available to users in 186 countries worldwide. LSDS customers/users include Federal, State, local and tribal governments, academia, industry, international community, and the general public requiring land surface data for applications such as resource management, water management, emergency response, agricultural, forestry, geology, and land change science. Primary IT functions include: - Capture land surface data. - Archive satellite mission data. - Calibrate and validate satellite data. - Process data to generate user products. - Delivery of data through the user portal with search capability.

2. How does this investment close in part or in whole any identified performance gap in support of the mission delivery and management support areas? Include an assessment of the program impact if this investment isn't fully funded.

The LSDS investment will capture, archive, process, and distribute, through the Internet, to users world-wide land surface data received from Landsat 8. LSDS fulfills DOI/USGS requirements under the Land Remote Sensing Policy Act of 1992 for the continuity of Landsat data and Presidential Decision Directive National Science and Technology Council-3 (signed

May, 1994 and revised October 16, 2000), which directs DOI/USGS to assume responsibility for the management and operations of the Landsat satellites, currently Landsats 5 and 7. Also, the 2010 National Space Policy assigns the Secretary responsibility for determining Federal-agency requirements for operational collection, processing, archiving, and distribution of land surface data. If full funding is not provided for this investment, land surface data will not be readily available for scientists and decision makers to address issues critical to the Nation, such as water management or emergencies, natural or human-induced. For example, in at least 16 western states, where irrigated agriculture accounts for 86% of all water consumption, Landsat data are essential to determine water-usage critical for arbitrating the increasingly common water-resource conflicts.

- 3. Provide a list of this investment's accomplishments in the prior year (PY), including projects or useful components/project segments completed, new functionality added, or operational efficiency achieved.
  - Distributed approximately 2.7 million scenes. Completed Landsat Data Continuity Mission (LDCM) Ground Network Release 1. Completed LDCM Data Processing and Archive System (DPAS) Release 1. Completed LDCM Ground Network pre-launch support phase 1. Completed LDCM DPAS Release 2.
- 4. Provide a list of planned accomplishments for current year (CY) and budget year (BY).

Current Year (2012) - Distribute about 2.7 million scenes per year. - Implement full resolution browse capability into operations. - Complete LSDS ground system integration analysis. - Complete LDCM Science Data Level 1 Processing release. Budget Year (2013) - Distribute about 2.7 million scenes per year. - Complete LDCM Ground Network pre-launch support phase 2. - Complete LDCM Science Data Level 1 Processing full production capability release. - Complete LDCM International Cooperator interface release. - Declare LDCM Initial Operating Capability (IOC). - Complete and closeout LDCM development project. - USGS assumes operational responsibility for LDCM satellite mission from NASA.

5. Provide the date of the Charter establishing the required Integrated Program Team (IPT) for this investment. An IPT must always include, but is not limited to: a qualified fully-dedicated IT program manager, a contract specialist, an information technology specialist, a security specialist and a business process owner before OMB will approve this program investment budget. IT Program Manager, Business Process Owner and Contract Specialist must be Government Employees.

2011-07-27

## Section C: Summary of Funding (Budget Authority for Capital Assets)

1.

| Table I.C.1 Summary of Funding                               |                    |            |            |            |  |  |  |  |  |
|--------------------------------------------------------------|--------------------|------------|------------|------------|--|--|--|--|--|
|                                                              | PY-1<br>&<br>Prior | PY<br>2011 | CY<br>2012 | BY<br>2013 |  |  |  |  |  |
| Planning Costs:                                              | \$0.0              | \$0.0      | \$0.0      | \$0.0      |  |  |  |  |  |
| DME (Excluding Planning) Costs:                              | \$0.0              | \$13.4     | \$13.1     | \$7.3      |  |  |  |  |  |
| DME (Including Planning) Govt. FTEs:                         | \$0.0              | \$0.8      | \$0.9      | \$0.5      |  |  |  |  |  |
| Sub-Total DME (Including Govt. FTE):                         | 0                  | \$14.2     | \$14.0     | \$7.8      |  |  |  |  |  |
| O & M Costs:                                                 | \$0.0              | \$5.1      | \$5.3      | \$9.5      |  |  |  |  |  |
| O & M Govt. FTEs:                                            | \$0.0              | \$0.2      | \$0.2      | \$0.6      |  |  |  |  |  |
| Sub-Total O & M Costs (Including Govt. FTE):                 | 0                  | \$5.3      | \$5.5      | \$10.1     |  |  |  |  |  |
| Total Cost (Including Govt. FTE):                            | 0                  | \$19.5     | \$19.5     | \$17.9     |  |  |  |  |  |
| Total Govt. FTE costs:                                       | 0                  | \$1.0      | \$1.1      | \$1.1      |  |  |  |  |  |
| # of FTE rep by costs:                                       | 0                  | 7          | 7          | 7          |  |  |  |  |  |
|                                                              |                    |            |            |            |  |  |  |  |  |
| Total change from prior year final President's Budget (\$)   |                    | \$0.0      | \$0.0      |            |  |  |  |  |  |
| Total change from prior year final<br>President's Budget (%) |                    | 0.00%      | 0.00%      |            |  |  |  |  |  |

2. If the funding levels have changed from the FY 2012 President's Budget request for PY or CY, briefly explain those changes:

There is no change from the FY12 President's Budget Request.

### Section D: Acquisition/Contract Strategy (All Capital Assets)

|               | Table I.D.1 Contracts and Acquisition Strategy |                          |                                                |                                                            |                     |                 |                                     |      |        |                |                                   |  |
|---------------|------------------------------------------------|--------------------------|------------------------------------------------|------------------------------------------------------------|---------------------|-----------------|-------------------------------------|------|--------|----------------|-----------------------------------|--|
| Contract Type | EVM Required                                   | Contracting<br>Agency ID | Procurement<br>Instrument<br>Identifier (PIID) | Indefinite<br>Delivery<br>Vehicle<br>(IDV)<br>Reference ID | IDV<br>Agency<br>ID | Solicitation ID | Ultimate<br>Contract Value<br>(\$M) | Туре | PBSA ? | Effective Date | Actual or<br>Expected<br>End Date |  |
| Awarded       | 1434                                           | ING12PD0050<br>2         | ING10PC00044                                   | 1434                                                       |                     |                 |                                     |      |        |                |                                   |  |
| Awarded       | 1434                                           | ING11PD0056<br><u>8</u>  | ING10PC00044                                   | 1434                                                       |                     |                 |                                     |      |        |                |                                   |  |

2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why: Earned Value Management (EVM) is required on contracts depending on size and other criteria for reporting EVM.

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# **Exhibit 300B: Performance Measurement Report**

**Section A: General Information** 

**Date of Last Change to Activities: 2012-07-24** 

### Section B: Project Execution Data

| Table II.B.1 Projects |                 |                                                                                           |                       |                               |                                    |  |  |  |  |
|-----------------------|-----------------|-------------------------------------------------------------------------------------------|-----------------------|-------------------------------|------------------------------------|--|--|--|--|
| Project ID            | Project<br>Name | Project<br>Description                                                                    | Project<br>Start Date | Project<br>Completion<br>Date | Project<br>Lifecycle<br>Cost (\$M) |  |  |  |  |
| LSDS-0001             | L8              | Development of the ground system to collect, archive, process, & distribute data from L8. |                       |                               |                                    |  |  |  |  |

### **Activity Summary**

### Roll-up of Information Provided in Lowest Level Child Activities

| Project ID | Name | Total Cost of Project<br>Activities<br>(\$M) | End Point Schedule<br>Variance<br>(in days) | End Point Schedule<br>Variance (%) | Cost Variance<br>(\$M) | Cost Variance<br>(%) | Total Planned Cost<br>(\$M) | Count of<br>Activities |
|------------|------|----------------------------------------------|---------------------------------------------|------------------------------------|------------------------|----------------------|-----------------------------|------------------------|
| LSDS-0001  | L8   |                                              |                                             |                                    |                        |                      |                             |                        |

|              |                                                                               |                    |                            | Key Deliverables             |                        |                       |                                 |                       |
|--------------|-------------------------------------------------------------------------------|--------------------|----------------------------|------------------------------|------------------------|-----------------------|---------------------------------|-----------------------|
| Project Name | Activity Name                                                                 | Description        | Planned Completion<br>Date | Projected<br>Completion Date | Actual Completion Date | Duration<br>(in days) | Schedule Variance<br>(in days ) | Schedule Variance (%) |
| LSDS-0001    | Complete Systems<br>Engineering/Ground<br>Readiness Test<br>5-Joint NASA/USGS | Complete GRT 5     | 2011-03-31                 | 2012-09-30                   |                        | 120                   | -549                            | -457.50%              |
| LSDS-0001    | Complete Integrated Baseline Review                                           | Project Management | 2011-04-30                 | 2012-09-30                   | 2012-04-30             | 211                   | -366                            | -173.46%              |

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|              | Key Deliverables                                                               |                 |                            |                              |                        |                       |                                 |                       |  |  |  |
|--------------|--------------------------------------------------------------------------------|-----------------|----------------------------|------------------------------|------------------------|-----------------------|---------------------------------|-----------------------|--|--|--|
| Project Name | Activity Name                                                                  | Description     | Planned Completion<br>Date | Projected<br>Completion Date | Actual Completion Date | Duration<br>(in days) | Schedule Variance<br>(in days ) | Schedule Variance (%) |  |  |  |
| LSDS-0001    | Complete Systems<br>Engineering/Ground<br>Readiness Test<br>6-Joint NASA/USGS  | Complete GRT 6  | 2011-05-31                 | 2012-07-31                   |                        | 60                    | -458                            | -763.33%              |  |  |  |
| LSDS-0001    | Complete Systems<br>Engineering/Ground<br>Readiness Test<br>4B-Joint USGS/NASA | Complete GRT 4B | 2011-09-30                 | 2011-11-30                   | 2011-11-30             | 60                    | -61                             | -101.67%              |  |  |  |
| LSDS-0001    | Complete Systems<br>Engineering/Ground<br>Readiness Test<br>4C-Joint USGS/NASA | Complete GRT 4C | 2012-08-31                 | 2012-08-31                   |                        | 335                   | 0                               | 0.00%                 |  |  |  |

## Section C: Operational Data

|                                                                                                                                                                              |                 |                                                            | Table                    | II.C.1 Performance Mo | etrics        |               |               |                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------------------------------------------------|--------------------------|-----------------------|---------------|---------------|---------------|------------------------|
| Metric Description                                                                                                                                                           | Unit of Measure | FEA Performance<br>Measurement<br>Category Mapping         | Measurement<br>Condition | Baseline              | Target for PY | Actual for PY | Target for CY | Reporting<br>Frequency |
| Progress towards<br>achieving operational<br>readiness in 2012 as<br>measured by the<br>percent of the Search<br>& Order development<br>lifecycle milestones<br>accomplished | % Complete      | Customer Results -<br>Service Accessibility                | Over target              | 0.00000               | 86.000000     | 88.000000     | 100.000000    | Quarterly              |
| % of satellite data<br>sent to customers<br>based on customer<br>priority specification                                                                                      | % Complete      | Customer Results -<br>Timeliness and<br>Responsiveness     | Over target              | 90.000000             | 93.000000     | 95.000000     | 93.000000     | Quarterly              |
| Progress towards<br>achieving operational<br>readiness in 2012 as<br>measured by the<br>percent of the LSDS<br>lifecycle milestones<br>accomplished                          | % Complete      | Process and Activities - Quality                           | Over target              | 0.00000               | 95.000000     | 90.00000      | 100.000000    | Quarterly              |
| % of satellite data<br>available from archive<br>within 24 hours of<br>capture                                                                                               | % Complete      | Process and Activities - Quality                           | Over target              | 95.000000             | 97.000000     | 99.000000     | 97.000000     | Quarterly              |
| Progress toward achieving operational readiness in 2012 as measured by the percent of the Image Processing development lifecycle milestones accomplished                     | % Complete      | Technology -<br>Information and Data                       | Over target              | 0.00000               | 67.000000     | 67.000000     | 92.000000     | Quarterly              |
| % of nation coverage<br>to meet land use<br>planning and<br>monitoring                                                                                                       | % Complete      | Mission and Business<br>Results - Services for<br>Citizens | Over target              | 95.000000             | 100.000000    | 100.000000    | 100.000000    | Quarterly              |
| Progress towards                                                                                                                                                             | % Complete      | Mission and Business                                       | Over target              | 0.000000              | 90.000000     | 95.000000     | 100.000000    | Quarterly              |

|                                                                                                                                                                  | Table II.C.1 Performance Metrics |                                                                               |                          |           |               |               |               |                        |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------------------------------------------------------------------------------|--------------------------|-----------|---------------|---------------|---------------|------------------------|--|--|--|
| Metric Description                                                                                                                                               | Unit of Measure                  | FEA Performance<br>Measurement<br>Category Mapping                            | Measurement<br>Condition | Baseline  | Target for PY | Actual for PY | Target for CY | Reporting<br>Frequency |  |  |  |
| achieving operational<br>readiness in 2012 as<br>measured by the<br>percent of the<br>Storage and Archive<br>development<br>lifecycle milestones<br>accomplished |                                  | Results - Services for<br>Citizens                                            |                          |           |               |               |               |                        |  |  |  |
| Unit costs of managed services                                                                                                                                   | Dollars                          | Mission and Business<br>Results -<br>Management of<br>Government<br>Resources | Over target              | 3.650000  | 3.650000      | 1.953000      | 4.000000      | Quarterly              |  |  |  |
| % Success Rate -<br>Satellite data capture                                                                                                                       | % Complete                       | Technology -<br>Effectiveness                                                 | Over target              | 95.000000 | 97.000000     | 99.000000     | 97.000000     | Monthly                |  |  |  |